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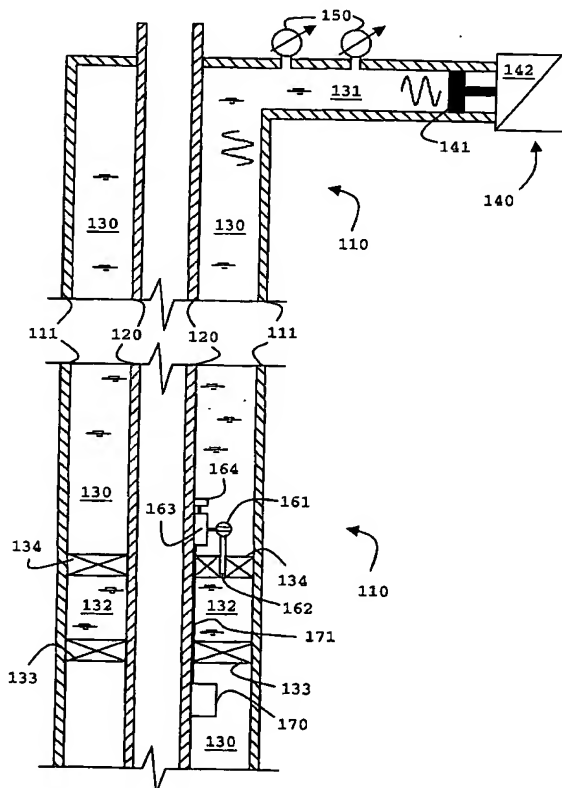
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(54) Title: BOREHOLE TELEMETRY SYSTEM



(57) Abstract: An acoustic telemetry apparatus and method for communicating encoded digital data from a down-hole location through a borehole to the surface is described including an acoustic channel terminated at a down-hole end by a reflecting terminal (133, 134), an acoustic wave generator (140) located at the surface and providing an acoustic wave carrier signal through said acoustic channel, a modulator (162, 163) located down-hole to modulate amplitude and/or phase of said carrier wave in response to an encoded digital signal and one or more sensors (150) located at the surface adapted to detect amplitude and/or phase related information of acoustic waves traveling within said acoustic channel to determine the encoded digital data.



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